

U.S. FISH AND WILDLIFE SERVICE – SPOTLIGHT SPECIES ACTION PLAN

Common Name: Christ's paintbrush

Scientific Name: Castilleja christii

Lead Region: 1

Lead Field Office: Idaho Fish and Wildlife Office

Species Information:

Status: Candidate

Listing Priority Number: 8

Candidate Assessment Form: Candidate Notice of Review April 28, 2009

Most Recent 5-year Review: N/A

Other:

(USFS) U.S. Forest Service. 2009. Draft *Castilleja christii*, Candidate Conservation Agreement Report 2005, 2006, 2007, & 2008 and preliminary 2009 data. U.S. Forest Service, Sawtooth National Forest, Minidoka Ranger District. 30 pages.

(USFS and USFWS) U.S. Forest Service and U.S. Fish and Wildlife Service. 2005. Candidate Conservation Agreement for *Castilleja christii*, Christ's Indian paintbrush. U.S. Forest Service, Minidoka Ranger District, Sawtooth National Forest, Twin Falls and Burley, Idaho. 60pp.

Factors Affecting the Species: The primary threat to *Castilleja christii* (CACH) is the nonnative invasive plant smooth brome (*Bromus inermis*), which can displace CACH. Smooth brome currently occupies approximately 5% of CACH geographic range. Other threats to this species include recreational use and livestock trespass, which appear to be mostly seasonal and affect only a small portion of the population and its habitat (USFS and USFWS 2005).

Target: *Castilleja christii* (CACH) removed from the candidate list. The distribution of this species is limited to the upper slopes of Mount Harrison within the boundaries of the Sawtooth National Forest of south-central Idaho. Overall, the threats to CACH are considered to be low to moderate and imminent, and are actively being addressed through a conservation agreement between Sawtooth National Forest Service and the Service.

Measure: Reduce the overall impact of the smooth brome infestation, such that its occurrence within the CACH population is confined to less than 7 acres (3% of the occupied habitat) with a decreasing trend over a 3 year period.

Actions:

Action	Threat(s) Addressed	Responsible Party	Estimated Cost (\$)
Management			

Annually treat smooth brome infestation until eradicated or occurrence is < 3% of occupied CACH habitat.	1) Degradation or loss of suitable habitat from invasive species.	U.S. Forest Service, U.S. Fish and Wildlife Service	See Attached Table
Annually monitor smooth brome infestation.	1) Degradation or loss of suitable habitat from invasive species.	U.S. Forest Service, U.S. Fish and Wildlife Service	See Attached Table
Monitor for new infestations of invasive non-native species.	1) Degradation or loss of suitable habitat from invasive species.	U.S. Forest Service, U.S. Fish and Wildlife Service	0
Install additional gate to manage seasonal OHV use.	1) Degradation or loss of suitable habitat from illegal use of OHV's, 2) Introduction of non-native species within suitable habitat.	U.S. Forest Service	See Attached Table
Maintain rock barriers to prevent illegal OHV use.	1) Degradation or loss of suitable habitat from illegal use of OHV's, 2) Introduction of non-native species within suitable habitat.	U.S. Forest Service	0
Monitor the effects of dispersed recreation.	1) Degradation or loss of suitable habitat from illegal use of OHV's, 2) Introduction of non-native species within suitable habitat, 3) Habitat disturbance.	U.S. Forest Service	0
Maintain and improve cattle exclosures.	1) Unauthorized livestock access into the population.	U.S. Forest Service	0
Establish vehicle inspections and wash stations for organized recreation events.	1) Introduction of non-native species within the population.	U.S. Forest Service	0
Maintain Mount Harrison mineral withdrawal designation	1) Degradation or loss of suitable habitat.	U.S. Forest Service	0
Outreach and Education			
Public outreach regarding CACH to visitors to Mount Harrison and special use permittees.	1) Degradation or loss of suitable habitat from illegal use of OHV's, 2) Introduction of non-native species within suitable habitat.	U.S. Forest Service	See Attached Table
Coordinate with livestock permittees.	1) Unauthorized livestock access into the population.	U.S. Forest Service	0
Coordinate with the Burley Highway District on herbicide and revegetation treatments.	1) Introduction of non-native species within the population, 2) Incidental mortality from road maintenance activities and use of herbicides.	U.S. Forest Service, Burley Highway District	0
Research			
Complete hybridization research project through Boise State	1) Loss of genetic diversity through hybrid swamping.	Boise State University, U.S. Forest Service, U.S.	??

University.		Fish and Wildlife Service	
Evaluate seedling outplanting program for re-established CACH.	1) Loss of genetic diversity through hybrid swamping.	U.S. Forest Service, U.S. Fish and Wildlife Service, Red Butte Garden	?*

* These actions were funded in 2009, not yet known whether additional funding will be needed.

Role of other agencies: The distribution of *Castilleja christii* exists completely within the administrative boundaries of the Sawtooth National Forest. Cooperation with the Forest Service will be critical in implementation and monitoring of all conservation actions. Furthermore, continued education and outreach to special use permittees and recreationists whom use the Forest will be important for reaching the target.

Role of other ESA programs: There have not been any other roles identified in this action plan for other ESA programs.

Role of other FWS programs: Continue to leverage 1115 Conservation funding to control and monitor smooth brome.

Conservation Actions - Estimated Costs - 5 Year Outlook												
Action	2010		2011		2012		2013		2014		5 Year Total	
	USFWS	TOTAL	USFWS	TOTAL	USFWS	TOTAL	USFWS	TOTAL	USFWS	TOTAL	USFWS	TOTAL
Smooth brome treatment	6,000	6,000	6,500	6,500	7,000	7,000	7,500	7,500	8,000	8,000	35,000	35,000
Smooth brome monitoring	2,500	5,000	2,750	5,500	3,000	6,000	3,250	6,500	3,500	7,000	15,000	30,000
Sign repair	-	-	-	-	500	1000	-	-	-	-	500	1000
Install additional gate to prevent illegal OHV use	2,500	5,000	-	-	-	-	-	-	-	-	2,500	5,000
Hybridization research	?	?	-	-	-	-	-	-	-	-	?	?
Out-planting program	?	?	-	-	-	-	-	-	-	-	?	?

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